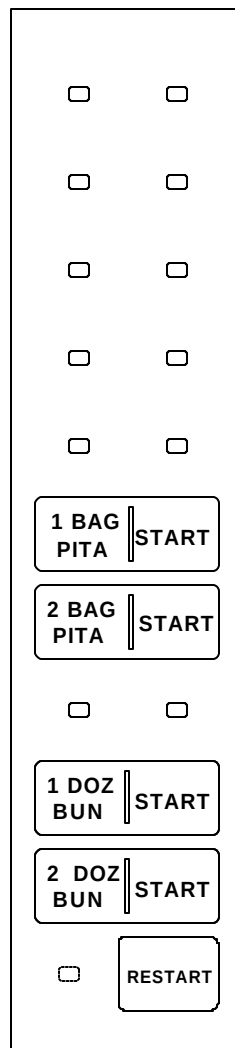
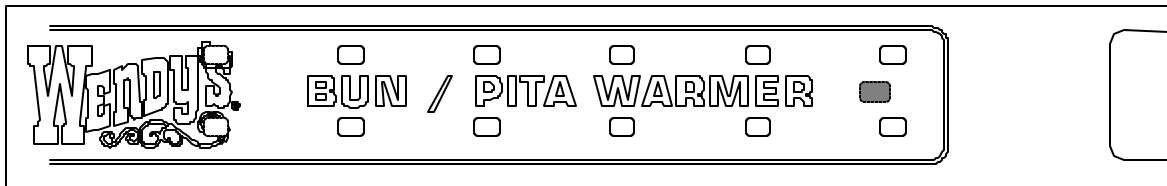


Training Manual

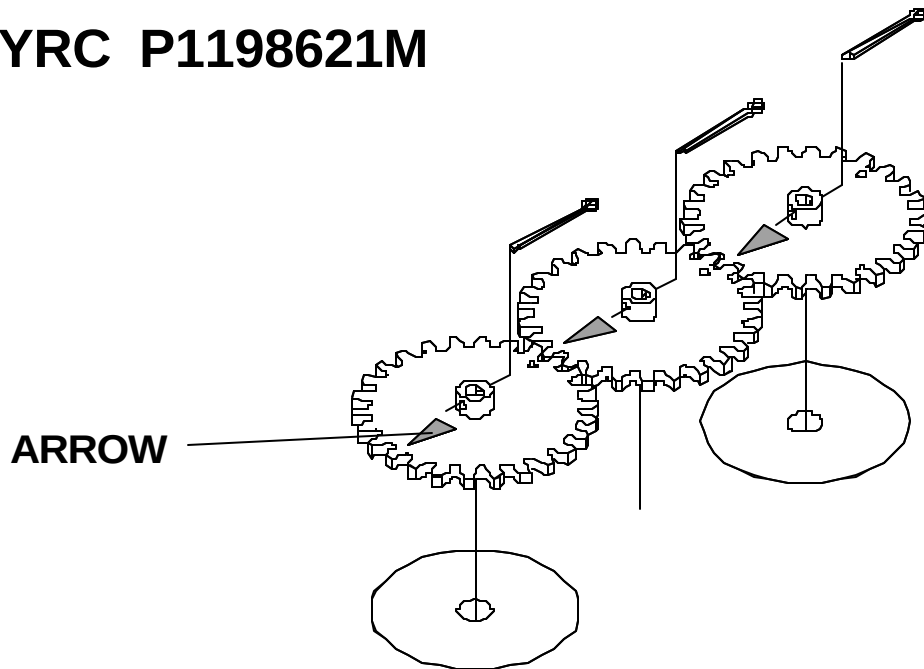
ADDENDUM

WDYRC2



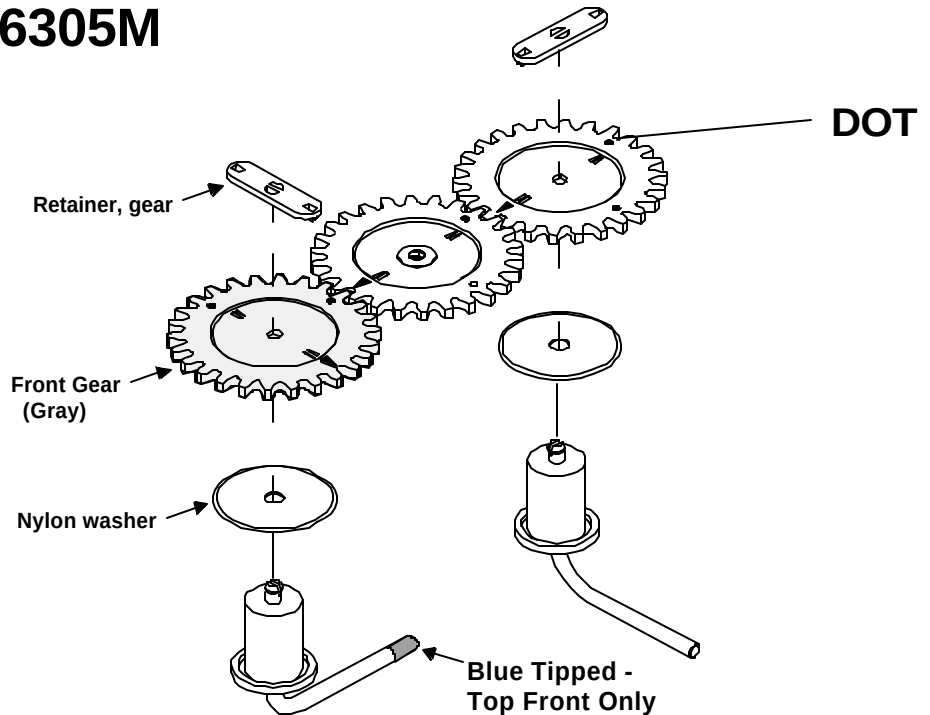
ANTENNA ASSEMBLY

WDYRC P1198621M

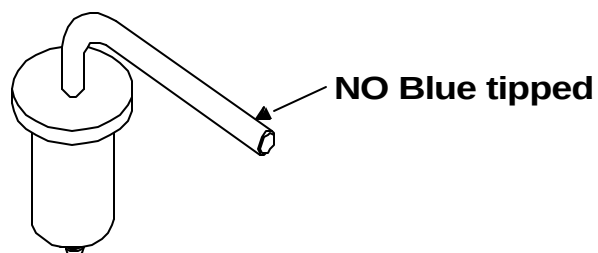


WDYRC2 P1326305M

Top
Antennas
(90° offset)



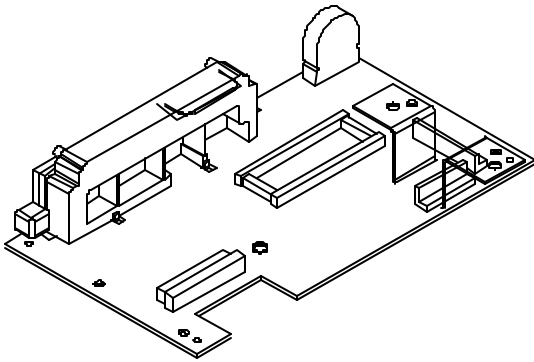
Bottom
Antenna



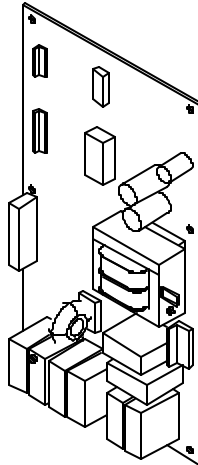
CONTROLS

WDYRC P1198621M

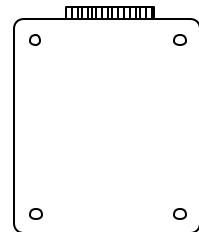
L.V. Board



H.V. Board

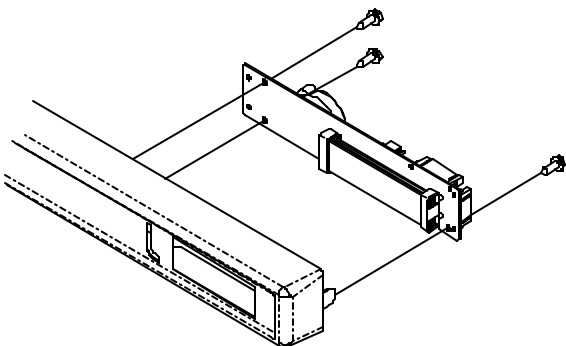


**Extended
Memory
Board**

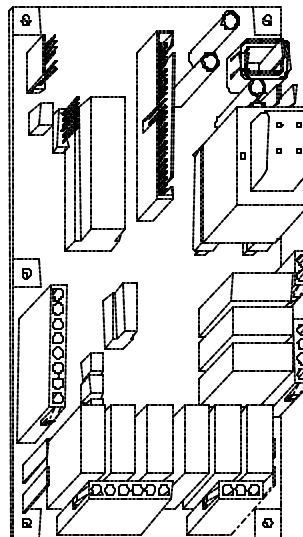


WDYRC2 P1326305M

Display Board



H.V. Board



**NO
Extended
Memory
Board**

Commercial Microwave—Technical Information

208/230 VAC, 60 Hz Models

WDYRC2 P1326305M

- Due to possibility of personal injury or property damage, always contact an authorized technician for servicing or repair of this unit.
- Refer to Service Manual RS2240003 for installation, operating, testing, troubleshooting, and disassembly instruction.
- Refer to Parts Manuals RP2240008 for part number information.



CAUTION

All safety information must be followed as provided in Service Manual RS2240003.



WARNING

To avoid the risk of electrical shock, personal injury or death: disconnect power to oven and discharge capacitor before servicing, unless testing requires power.

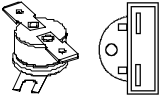
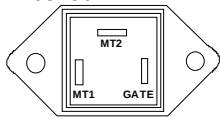
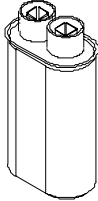
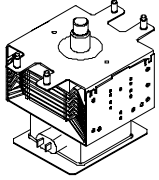
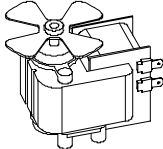
Models	WDYRC2	
Power Source		
Voltage AC	208/230 VAC	
Amperage (Single Unit)	20 A	
Frequency	60 Hz	
Single Phase, 3 wire grounded	X	
Receptacle	6–20R	
Plug	6–20P	
Power Output – Microwave		
Nominal microwave energy (IEC705)	2000 Watts	
Operating Frequency	2450 MHz	
Power Consumption		
Microwave only	3200 Watts	
Dimensions		
Cabinet (in cm)		
Width	19 1/4"	49 cm
Height	18 1/4"	46 cm
Depth	26 1/4"	67 cm
Oven Interior (in cm)		
Width	13"	33 cm
Height	8 1/2"	22 cm
Depth	15"	38 cm
Weight		
Uncrated	115 lbs.	
Crated	123 lbs.	

Component Testing Procedures



WARNING

To avoid risk of electrical shock, personal injury or death: disconnect power to oven and discharge capacitor before servicing, unless testing requires power.

Illustration	Component	Test	Results
	Thermal cutout B5684124..... B5795306.....	Disconnect all wires from TCO. Measure resistance across terminals. Magnetron TCO..... Cavity TCO.....	Open at 300°F (149°C) and closed at 257°F (125°C) Opens at 262°F (128°C)
	Diode	Discharge Capacitor Remove diode lead from capacitor and connect ohmmeter. Reverse leads for second test.	Infinite resistance should be measured in one direction and 50KΩ or more in the opposite direction. NOTE: Ohmmeter must contain a battery of 6 volts minimum.
	Triac	Resistance Check Disconnect wires to triac. Measure resistance from: MT1 to MT2..... MT1 to Gate MT2 to Gate All terminals to ground..... Voltage Check Measure voltage from: MT1 to Gate	Caution - Do not operate oven with wire to terminal MT2 removed. Infinite Approximately 60 Ω Infinite Infinite 0.8 VAC when energized. If no voltage, check H.V. board and wiring.
	Capacitor	Discharge Capacitor Remove wires from capacitor terminals and connect ohmmeter, set on highest resistance scale to terminals. Also check between each terminal and capacitor case.	Between Terminals: Meter should momentarily deflect towards zero then return to over 5 MΩ. If no deflection occurs, or if continuous deflection occurs, replace capacitor. Terminal to Case: Infinite resistance
	Snubber assembly	Disconnect wires to snubber. Measure resistance across terminals.....	Infinite
	Magnetron	Discharge Capacitor Remove wires from magnetron and connect ohmmeter to terminals. Also check between each terminal and ground.	Between Terminals: Less than 1 Ω Each terminal to ground measures Infinite resistance. Note: This test is not conclusive. If oven does not heat and all other components test good replace the magnetron and retest.
	Blower motor	Remove all wires from motor. Measure resistance across coil.....	Approximately 25 Ω

Component Testing Procedures



WARNING

To avoid risk of electrical shock, personal injury or death: disconnect power to oven and discharge capacitor before servicing, unless testing requires power.

Illustration	Component	Test	Results
C8901509 	Auto Transformer 	Discharge Capacitors Remove all wires from terminals. Measure resistance from: 230 V to 0 V 208 V to 0 V 120 V to 0 V	Approximately 38 Ω Approximately 37 Ω Approximately 25 Ω
10788613 	Transformer 	Discharge Capacitor Remove all wires from terminals. Measure resistance from: 230 to COM 208 to COM 230 to Ground 208 to Ground Terminal 5 to 6 Terminal 4 to Ground	Less than 1.1 Ω Less than 1 Ω Infinite Infinite Less than 1 Ω Approximately 70 Ω
12360506 	Interlock switch 	Disconnect wires to switch. With door open measure resistance from: Terminal 2 to 3 Terminal 4 to 5 Terminal 7 to 8 With door closed measure resistance from: Terminal 2 to 3 Terminal 4 to 5 Terminal 7 to 8	Infinite Infinite Indicates continuity Indicates continuity Indicates continuity Infinite
B8371401 	Lamp receptacle	Test continuity of receptacle terminals.	Indicates continuity if bulb is good and screwed in.
R0130263 	Antenna motor	Remove all wires from terminals. Measure resistance from: Terminal to terminal	Approximately 12K Ω
10098917.	Power cord	Measure resistance of wires.	Continuity should be indicated on each wire. Verify polarity and grounding.

Component Testing Procedures



WARNING

To avoid risk of electrical shock, personal injury or death: disconnect power to oven and discharge capacitor before servicing, unless testing requires power.

Top Touch Panel

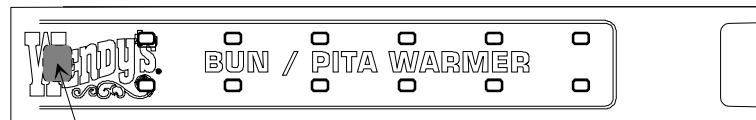
R0130113

Switch	Ribbon Trace	Ribbon Trace
Hidden Pad	8	9

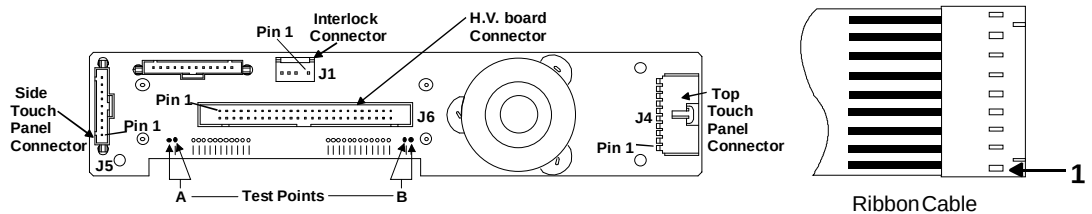
To test touch panel for proper

operation:

1. Identify ribbon traces for selected touch panel using chart.
2. Resistance between selected traces = 0 ohms.
3. Pressing touch panel, resistance between selected traces is less than 40 ohms.

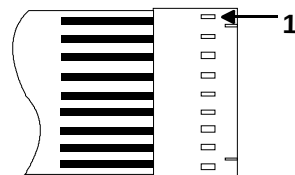


Hidden Pad



Side Touch Panel

R0130111

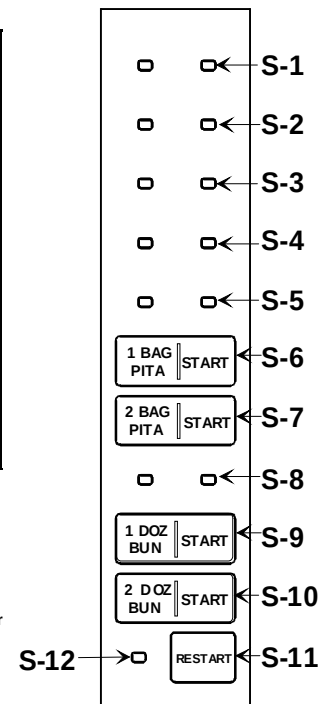
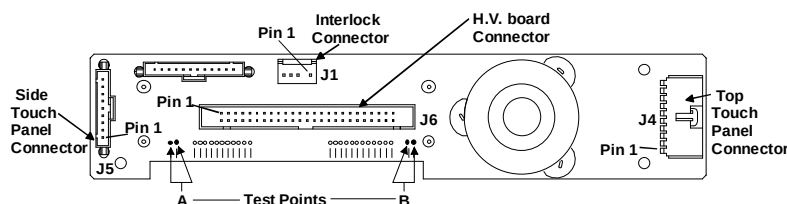


Ribbon Cable

Switch	Ribbon Trace	Ribbon Trace
S1	3	5
S2	3	6
S3	3	7
S4	3	8
S5	3	9
S6	4	5
S7	4	6
S8	4	7
S9	4	8
S10	4	9
S11	6	9
S12	5	6

To test touch panel for proper operation:

1. Identify ribbon traces for selected touch panel using chart.
2. Resistance between selected traces = 0 ohms.
3. Pressing touch panel, resistance between selected traces is less than 40 ohms.



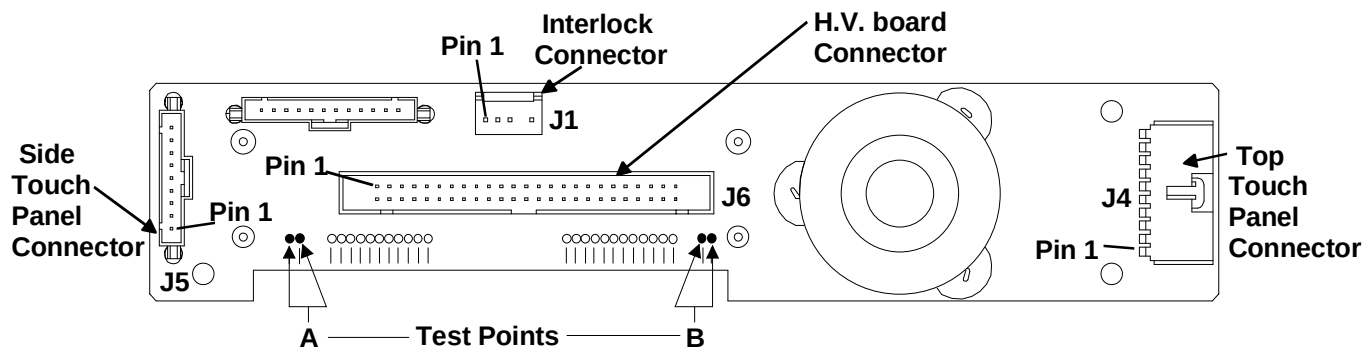
Component Testing Procedures



WARNING

To avoid risk of electrical shock, personal injury or death: disconnect power to oven and discharge capacitor before servicing, unless testing requires power.

Display board
12502401



Function	Test Set-Up	Meter Setting	Probe Placement	Results
Input to Display Board	At Display Board	Volts	Test points A and B	3.0 VAC If voltage is present and no display is indicated, replace display board. If no voltage is present, check wire harness connections and H.V. board.

H.V. Board – Relay Test

Relay	Function	Test Set-Up	Meter Setting	Probe Placement	Results
K8	Magnetron 1 (Top rear) at 230 VAC	All wires connected to H.V. board	VAC	E2 (Black wire) & J4 pin 2 (Red wire)	Test mode 1 off - line voltage Test mode 1 on - 0 volts
K9	Magnetron 1 (Top rear) at 208 VAC	All wires connected to H.V. board	VAC	E2 (Black wire) & J4 pin 1 (White wire)	Test mode 1 off - line voltage Test mode 1 on - 0 volts
K4	Magnetron 2 (Top front) at 230 VAC	All wires connected to H.V. board	VAC	E5 (Red wire) & J3 pin 1 (Gray wire)	Test mode 2 off - line voltage Test mode 2 on - 0 volts
K5	Magnetron 2 (Top front) at 208 VAC	All wires connected to H.V. board	VAC	E5 (Red wire) & J3 pin 3 (Orange wire)	Test mode 2 off - line voltage Test mode 2 on - 0 volts
K6	Magnetron 3 (Bottom) at 230 VAC	All wires connected to H.V. board	VAC	J4 pin 4 (Black wire) & J4 pin 6 (Black wire)	Test mode 3 off - line voltage Test mode 3 on - 0 volts
K7	Magnetron 3 (Bottom) at 208 VAC	All wires connected to H.V. board	VAC	J4 pin 4 (Black wire) & J4 pin 5 (Brown wire)	Test mode 3 off - line voltage Test mode 3 on - 0 volts

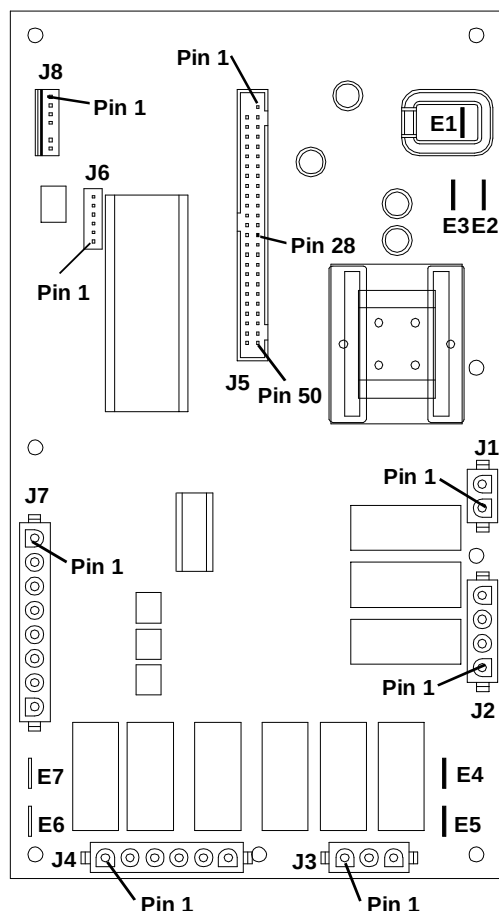
Component Testing Procedures



WARNING

To avoid risk of electrical shock, personal injury or death: disconnect power to oven and discharge capacitor before servicing, unless testing requires power.

H.V. board 12559103Q



Function	Test Set-Up	Meter Setting	Probe Placement	Results
Input to H.V. board	At H.V. board	Volts	J1 pin 1 (Brown wire) & J1 pin 2 (White wire)	Line voltage
Output to display board	Disconnect J5 connector, blower runs continuously	Volts	J5 pin 28 & J5 pin 50	- 24 VDC

NOTE: For the following test, place oven in Service Test Mode (see page XX).

Relay	Function	Test Set-Up	Meter Setting	Probe Placement	Results
K1 at 230 VAC line voltage	Blower motor Antenna motor Cavity light	Disconnect J2 connector	Ohms	J1 pin 1 (Brown wire) & J2 pin 4	Test mode 5 off - no continuity Test mode 5 on - < 1 Ω
K2 at 208 VAC line voltage	Blower motor Antenna motor Cavity light	Disconnect J2 connector	Ohms	J1 pin 1 (Brown wire) & J2 pin 3	Test mode 5 off - no continuity Test mode 5 on - < 1 Ω

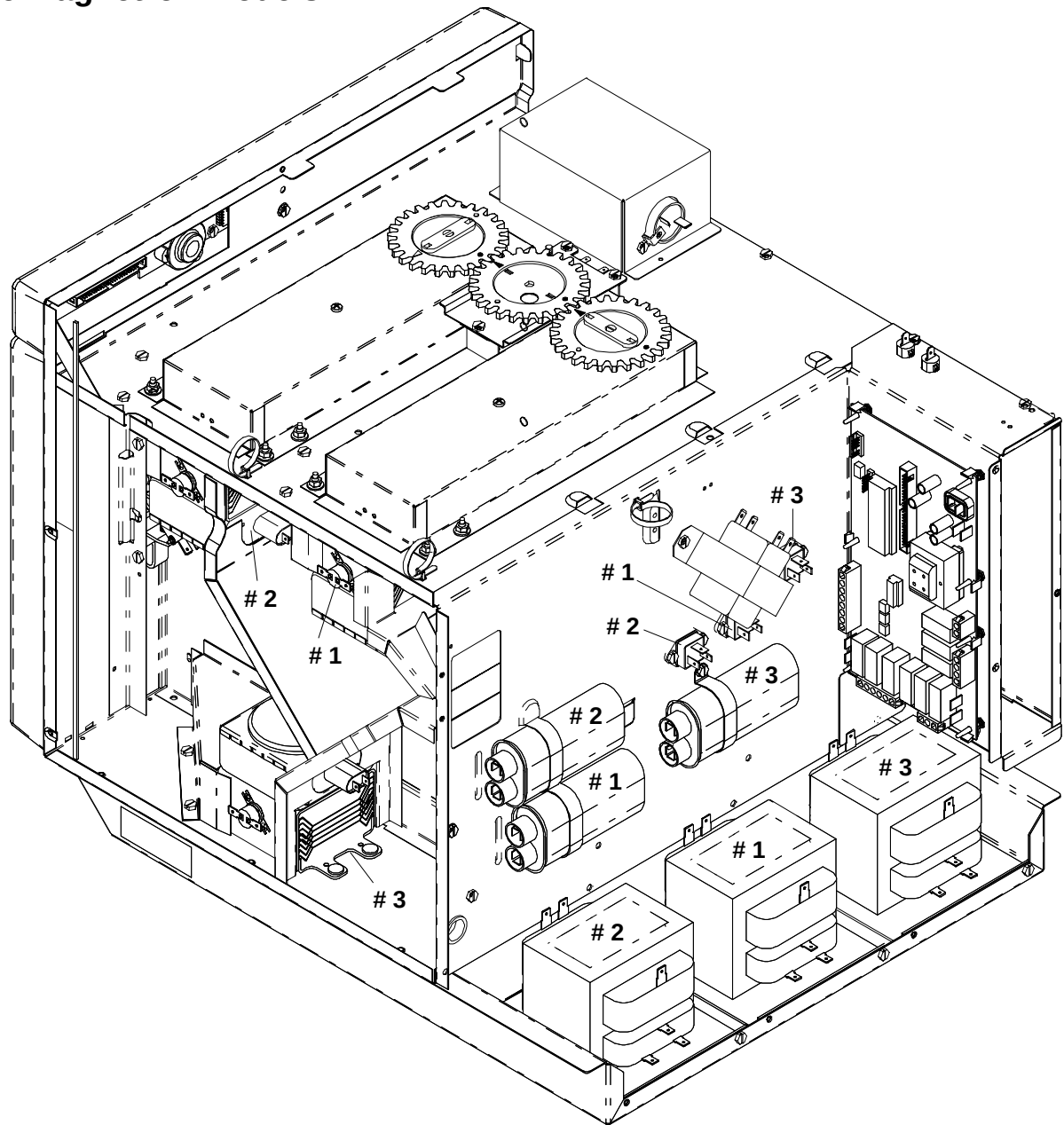
Component Testing Procedures



WARNING

To avoid risk of electrical shock, personal injury or death; disconnect power to oven and discharge capacitor before servicing, unless testing requires power.

Three Magnetron Models



H.V. System # 1	H.V. System # 2	H.V. System # 3
Top Rear Magnetron Center Transformer Bottom Center Capacitor Diode Center Triac	Top Front Magnetron Left Transformer Top Left Capacitor Diode Left Triac	Bottom Magnetron Right Transformer Right Capacitor Diode Right Triac

Power Testing Procedure



WARNING

To avoid risk of electrical shock, personal injury or death; disconnect power to oven and discharge capacitor before servicing, unless testing requires power.

Power Test (Traditional Test Method)

Test equipment required: Amana power test kit R0157397 (Fahrenheit) or
Menumaster power test kit M95D5 (Celsius).

1. Fill the plastic container to the 1000 ml. line with cool tap water.
2. Using the thermometer; stir the water, measure, and record the water temperature.

Initial water temperature should be approximately 60°F (16°C).

3. Place container on the center of the oven shelf and heat the water for **33 seconds for ovens with more than 1550 watts**. "2 BAG PITA" or "2 DOZ BUN" pads will allow enough time to complete the test.

NOTE: Use a watch second hand, not the oven timer.

4. Stir the water, measure and record the temperature of the water after heating time is complete.
5. Subtract the starting water temperature (Step 2), from the ending water temperature (Step 4) to obtain the temperature rise (ΔT).
6. See the Traditional Power Test Temperature Chart below.

NOTES: •The IEC-705 test method requires precision measurements and equipment. It is not practical to perform the IEC test in the field. To convert the traditional power test results to the approximate IEC-705 rating, take the traditional power test results and add 100 watts per magnetron for the unit being tested.

Example: 1682 — watts output using the traditional power test for model WDYRC2
 + 300 — watts (3 magnetrons X 100 watts)
 1982 — Approximate IEC-705 results

- Always perform power test three times for accuracy, changing the water after each test is performed.
- Variation or errors in the test procedure will cause a variance in the temperature rise. Additional power tests should be made if temperature rise appears marginal.
- Low line voltage will cause lower temperature rise.

Traditional Power Test Temperature Chart

THIRTY-THREE (33) SECONDS run time chart for units more than 1550 Watts cooking power

Fahrenheit				Celsius			
ΔT (°F)	Cooking Power Output	ΔT (°F)	Cooking Power Output	ΔT (°C)	Cooking Power Output	ΔT (°C)	Cooking Power Output
16	1240	24	1860	11.....	1540	14.....	1960
17	1317	25	1937	11.5.....	1610	14.5.....	2030
18	1395	26	2015	12.....	1680	15.....	2100
19	1472	27	2092	12.5.....	1750	15.5.....	2170
20	1550	28	2170	13.....	1820	16.....	2240
21	1627	28	2170	13.5.....	1890	16.5.....	2310
22	1705	29	2247				
23	1782	30	2325				

Display Diagnostics



WARNING

To avoid risk of electrical shock, personal injury, or death, disconnect power to oven and discharge capacitor before servicing, unless testing requires it.



CAUTION

All repairs as described in this troubleshooting section are to be performed only after the caution procedures one through eight listed below have been followed.

1. Check grounding before checking for possible causes.
2. Be careful of the high voltage circuit.
3. Discharge high voltage capacitor.
4. When checking the continuity of the switches or the high voltage transformer, disconnect one lead wire from these parts and then check continuity with the AC plug removed. To do otherwise may result in a false reading or damage to your meter.
5. Do not touch any parts of the circuitry on the P.C. Board circuit since static electric discharge may damage this control panel. Always touch yourself to ground while working on this panel to discharge any static charge in your body.
6. 208/230 VAC is present in the high voltage circuit board, power relay and primary circuit of low voltage transformer.
7. When troubleshooting, be cautious of possible electrical hazard.
8. When testing convection operation, convection fan may start at any time or if oven is hot.

Error Codes

During operation, the display may show the following service codes:

NOTE: Before scheduling service for any error codes, instruct customer to unplug oven for 1 minute, reconnect power, and retest. If unit operates properly, no service call is required.

Display	Description	Corrective Action
Err1	Failed H.V. Board	Replace H.V. Board.
Err2	Failed H.V. Board Failed Touch Panel	Replace H.V. Board See Err5 for test.
Err3	Failed H.V. Board Failed Touch Panel	Replace H.V. Board See Err5 for test.
Err4	Failed H.V. Board	Replace H.V. Board.
Err5	Failed Touch Panel	NOTE: If Touch Panel is pressed for more than 30 seconds, this error code will appear. 1. Disconnect oven from power supply. 2. Disconnect side touch panel connector from display board (J5). 3. Reconnect oven to power supply. 4. If "Err5" reappears after 30 seconds, replace top touch panel. 5. If "Err5" does not reappear after 30 seconds, replace side touch panel.
Err6	Failed H.V. Board	Replace H.V. board.
HOT		• Open TCO (magnetron). • Blower motor inoperative. • Restricted air filter. • H.V. board inoperative. • High ambient temperature. • Oven operated empty or with light loads. • Broken or loose wire.
Door	Door Interlock Primary Switch	• Verify latch mechanism moves freely on door. • Verify J1 connector on display board is properly seated. • Test interlock switch assembly and perform door adjustment if necessary. • Replace interlock switch assembly.

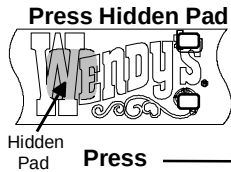
Service Test

**NOTE: Unit must be in OFF condition
or
INITIAL power up mode.**



To Enter Service Test Mode, oven door must be closed.

**NOTE: Pads will not beep when accessing Service Test Mode.
To EXIT Service Test Mode press STOP/RESET pad.**

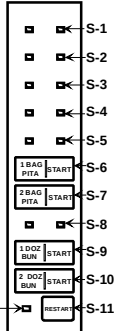


Then



Display

Component Evaluation



0 = Deactivated
1 = Activated

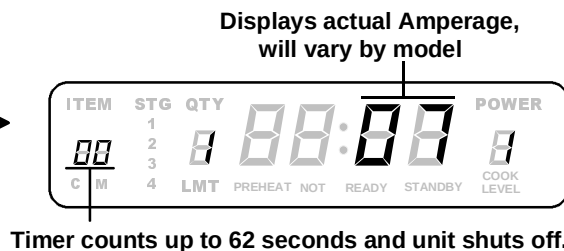


Indicates
Service
Mode

High Voltage System # 1

1

Toggles Magnetron 1
(Top Rear) ON/OFF.



Timer counts up to 62 seconds and unit shuts off.

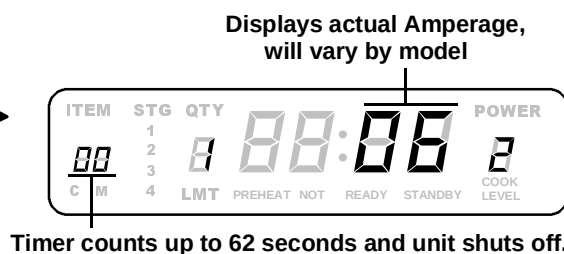
Displays actual Amperage,
will vary by model

If no Amperage, check for line voltage at H.V. transformer primary winding.
If no voltage, check:
• Interlock switch (secondary)
• Triac 1
• H.V. board (relay K8 if 230 VAC, K9 if 208 VAC, and triac 1 drive voltage T1 - G)
• Wiring
If voltage is present, check:
• H.V. components and wiring.

High Voltage System # 2

2

Toggles Magnetron 2
(Top Front) ON/OFF.



Timer counts up to 62 seconds and unit shuts off.

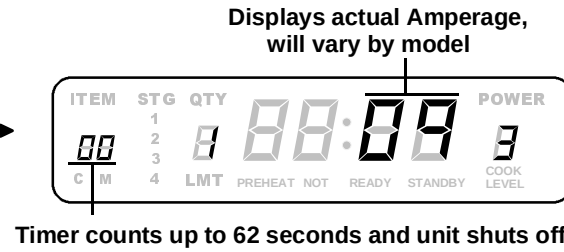
Displays actual Amperage,
will vary by model

If no Amperage, check for line voltage at H.V. transformer primary winding.
If no voltage, check:
• Interlock switch (secondary)
• Triac 2
• H.V. board (relay K4 if 208 VAC, K5 if 230 VAC, and triac 2 drive voltage T1 - G)
• Wiring
If voltage is present, check:
• H.V. components and wiring.

High Voltage System # 3

3

Toggles Magnetron 3
(Bottom) ON/OFF.



Timer counts up to 62 seconds and unit shuts off.

Displays actual Amperage,
will vary by model

If no Amperage, check for line voltage at H.V. transformer primary winding.
If no voltage, check:
• Interlock switch (secondary)
• Triac 3
• H.V. board (relay K6 if 230 VAC, K7 if 208 VAC, and triac 3 drive voltage T1 - G)
• Wiring
If voltage is present, check:
• H.V. components and wiring.

Service Test

Press →

Display

Component Evaluation

4 →
NOT ACTIVE



- This mode is NOT active with these models.

5 →
Toggles
Blower Motor
Antenna Motor(s)
Cavity Light (if applicable)
ON/OFF.



- If no fan operation, check:
- Blower motor and wheel
- Antenna motor
- Cavity light (if applicable)
- H.V. board relay K1 - 230 V relay K2 - 208V
- Wiring

6 →
NOT ACTIVE



- This mode is NOT active with these models.

7 →
Displays # of
Magnetron Hours.



8 →
Displays # of Door Cycles
with a 1 to 1 ratio rounded
to the nearest ten



9 →
Clears Hours and Cycles
(press START to activate)
(Resets to 0).



NOTE: This will not appear on later production models.

0 →
Temperature OFFSET
NOT APPLICABLE



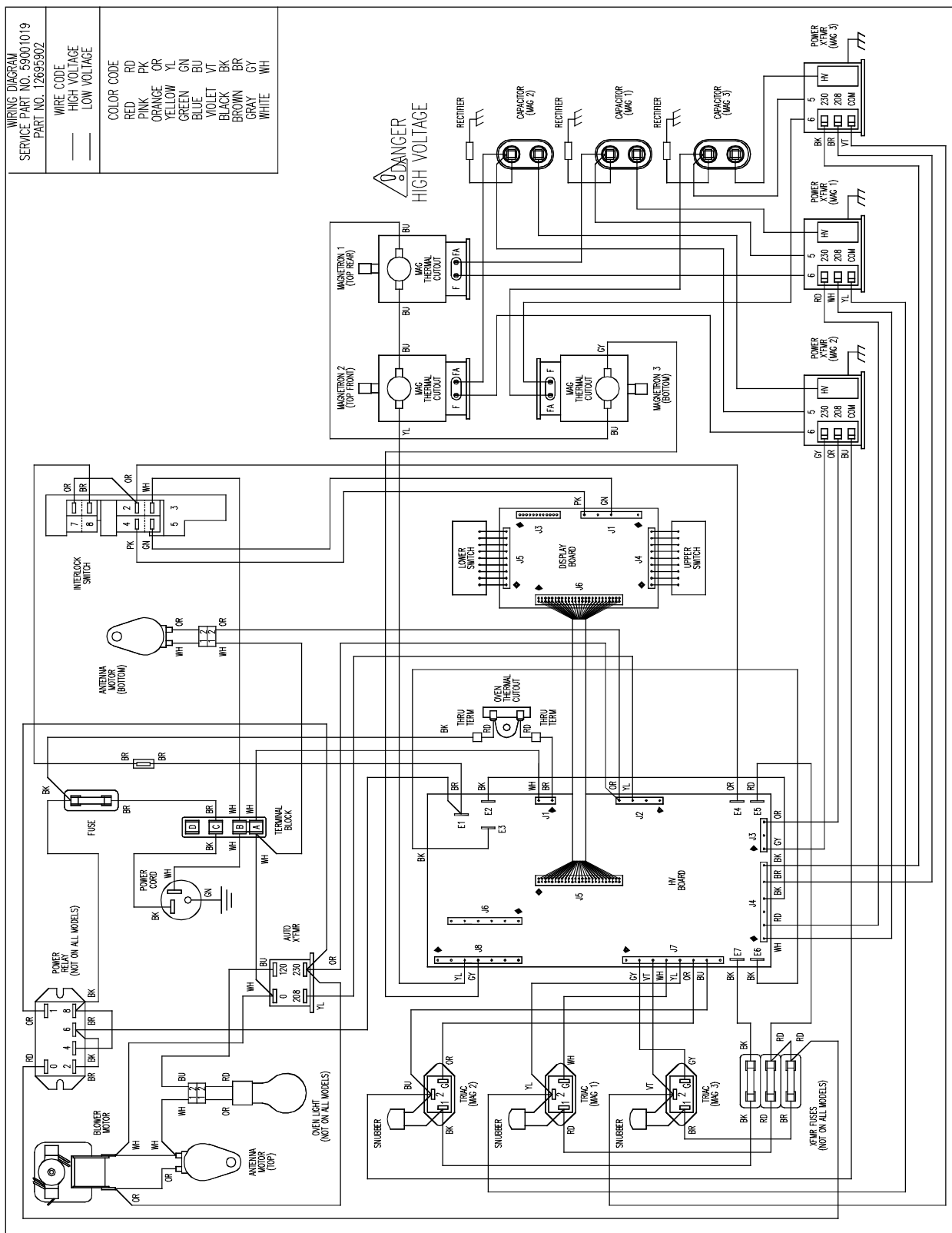
- Temperature OFFSET is NOT applicable with these models.

Wiring Diagram and Schematic



WARNING

To avoid risk of electrical shock, personal injury or death: disconnect power to oven and discharge capacitor before servicing, unless testing requires power.

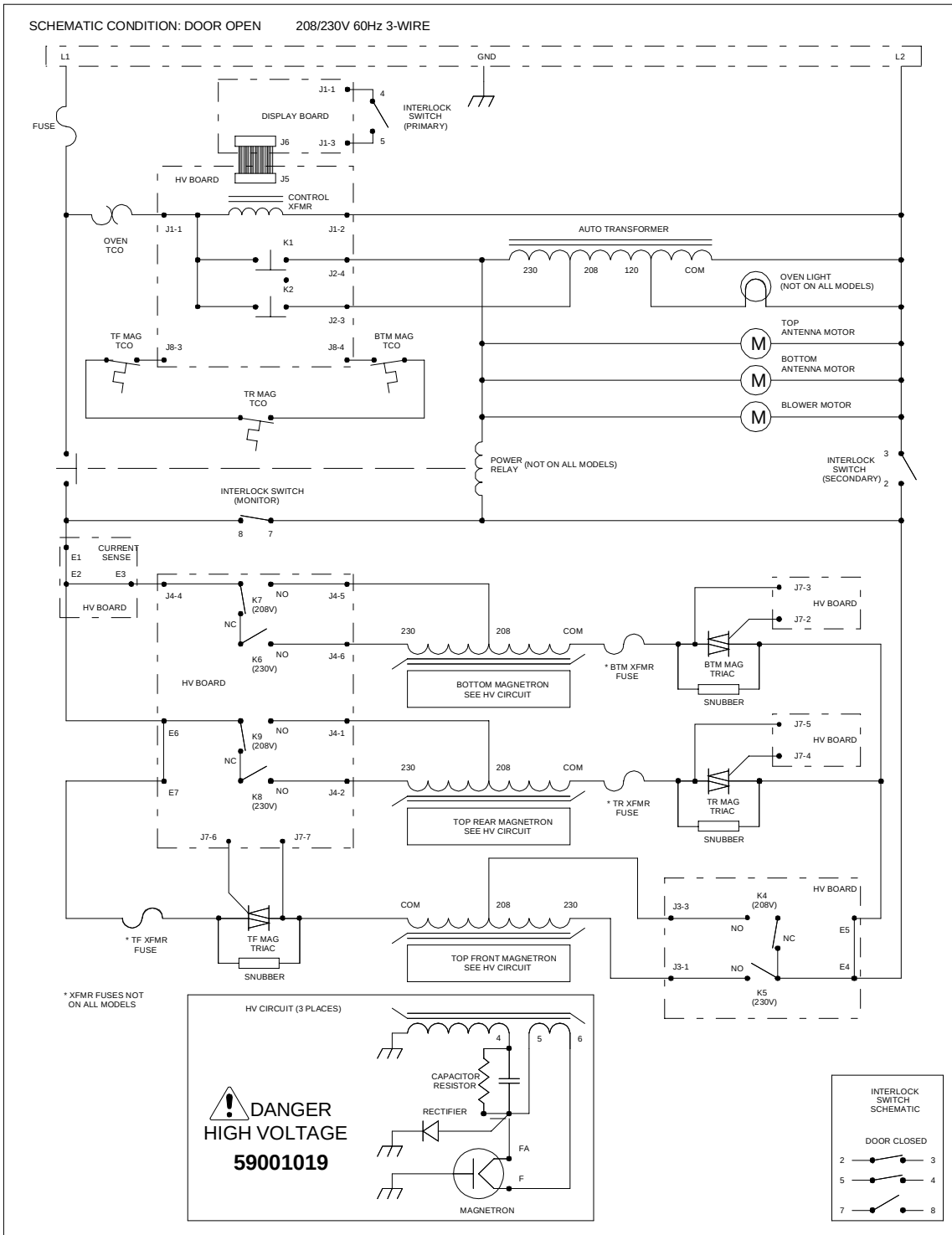


Wiring Diagram and Schematic



WARNING

To avoid risk of electrical shock, personal injury or death: disconnect power to oven and discharge capacitor before servicing, unless testing requires power.



DANGER

CONDENSED PARTS LIST

3-14-02

DESCRIPTION	WDYRC2 P1326305M	
	3 tubes	

HV board	12559103Q	
Display board	12502401	
Touch panel- top	R0130113	
Touch panel- side	R0130111	
Interlock switch assy.	12360506	
Fuse	M0805205	
Relay	X	
Thermal cut-out (mag)	B5684124	
Thermal cut-out (cavity)	B5795306	
Triac	D7681501	
Snubber	10172901Q	
Diode assembly	B8383102	
Capacitor- top mag	12548814 (2)	
Capacitor- bottom mag	12548814	
Transformer- HV	10788613	
Magnetron	10489402	
Transformer- auto	C8901509	
Blower motor	12138106	
Blower wheel	C3670809	
Power cord	10098917	
Harness- main oven	R0130266	
Harness- hi voltage wires	12598101	
Harness- PC board	R0130265	
Harness- relay	X	
Harness- switch to display board	12543101	
Receptacle- lamp	B8371401	

CONDENSED PARTS LIST

3-14-02

DESCRIPTION	WDYRC2 P1326305M	
	3 tubes	

Antenna motor	R0130263	
Antenna assy.- top front	R0130261	
	Blue tip	
Antenna assy.- top rear	R0130262	
Antenna assy.- bottom	R0130262	
Gear- white	12570101	
Gear- gray	12570102	
Washer- gear	10903002	
Handle- door	12490901	
Set screw- handle side	5051032202	
Set screw- handle bottom	M0208342	
Screw driver- Y drive	R0193574	
Screw- inner door Y drive	M0232218	
Outer door assy.	R0156918	
Menu panel	X	
Inner door & glass assy.	D7784901	
Inner door weldment	D7683719	
Hinge	C8961811	
Spring	C8893502	
Latch assy.	R0000282	
Wrapper- outercase	10908901	
Shelf	R0156942(2)	
Frame- oven shelf	12441001	
Lamp	10664502	
Grease shield	10766601	
Filter- grease	10853102	
Use & care manual	12392760	
Warranty certificate	Included ↑	